

Subject: GCSE Combined Science

Examination Board Edexcel/Pearson

Specification Number 1SC0

Teacher responsible Mrs Rafferty

Introduction

All students at Waterfront UTC are required to study GCSE Combined Science. Dependent on outcomes, some students may be offered the opportunity to study the extra content which would allow them to convert their double Combined Science award to the three separate science awards in Biology, Chemistry and Physics.

Course Content

Students will cover a broad range of topics in Biology, Chemistry and Physics:

Biology 1: Cells and Control, Genetics, Natural Selection and Genetic Modification, Health disease and Medicines

Biology 2: Plant structure and Function, Coordination, Homeostasis, Exchange and Transport in animals, Ecosystems

Chemistry 1: Periodic Table, Bonding and Structure, Quantitative chemistry, Extracting Metals and Equilibrium, Electrolysis and Separation of substances

Chemistry 2: Enthalpy changes, Fuels and Earth Science, Reaction Rates, Groups in the Periodic Table.

Physics 1: Motion and Forces, Conservation of Energy, Waves, Light and EM spectrum, Radioactivity.

Physics 2: Energy and Work, Forces and their effects, Electricity and Circuits, Magnetism and the Motor effect, Induction, the Particle Model of matter.

Assessment

Assessment takes place at the end of the course and is 100% examination based. There are six examinations. Each examination is worth 16.7%. Each of the terminal examinations lasts 1 hour and 10 minutes and examinations are tiered; Higher or Foundation. Foundation Tier ranges from grades 1 - 5, Higher Tier from grades 4 - 9.

As a requirement of the course, students will perform a minimum of 18 practical experiments, which may be assessed through the terminal examinations. The completion of the practical tasks is a key requirement of the course.

Progression

Students can progress from this qualification to:

- GCE A Levels, for example in Biology, Chemistry and/or Physics
- Level 3 vocational qualifications in science, for example. BTEC Level 3 in Applied Science
- Employment, for example in a science-based industry where an Apprenticeship may be available.

The content and skills for these qualifications are set by the DfE to be suitable to allow these progression routes